

LISTING OF THE CLAIMS

Claim 1 (Previously Presented): An expansion valve including a power element that senses pressure and temperature of refrigerant at an outlet of an evaporator and controls a valve lift of a valve portion, to thereby control a flow rate of refrigerant supplied to the evaporator,

characterized in that a maximum value of the valve lift is set such that the flow rate is equal to 1.0 to 1.4 times a flow rate corresponding to a tonnage set as a capacity which can pass a maximum flow rate; wherein,

the power element causes a center disk for transmitting displacement of a diaphragm sensing the pressure and temperature of the refrigerant to a valve element of the valve portion via a shaft to be brought into abutment with an inner wall of a housing toward the valve portion, thereby defining the maximum valve lift of the valve portion.

Claim 2 (Cancelled)

Claim 3 (Original) The expansion valve as claimed in claim 2, wherein the center disk is guided in a direction of displacement of the diaphragm, by a holder holding an end of the shaft on a side opposite to the valve portion.

Amendment Under 37 C.F.R. § 1.111
Serial No. 10/615,838
Attorney Docket No. 030784

Claim 4 (Original): The expansion valve as claimed in claim 1, wherein the valve portion comprises a valve seat, a valve element having a shape of a ball and disposed in a manner opposed to the valve seat from an upstream side, and a spring for urging the valve element in a valve-closing direction, and wherein the valve seat is tapered such that an amount of tapering is equal to or larger than an amount of axial motion of the valve element.

Claim 5 (New): The expansion valve of claim 1, further comprising a holder, wherein said holder is free of direct contact with said center disk.